

WHAT IS CLAIMED IS:

- 1 1. A method of treating an intervertebral disc, the method comprising:
2 inserting an introducer into an intervertebral disc having a contained disc herniation;
3 inserting a catheter through the introducer and into the intervertebral disc;
4 advancing a distal region of the catheter through a nucleus pulposus of the intervertebral
5 disc to an inner wall of an annulus fibrosus by blunt dissection;
6 delivering radiofrequency ("RF") energy to material of the intervertebral disc using an
7 electrode disposed at the distal region of the catheter; and
8 removing the material with the delivered RF energy,
9 wherein removing material with the delivered RF energy reduces pressure in the
10 intervertebral disc to treat the disc herniation.

- 1 2. The method of claims 1 wherein removing the material comprises removing
2 water.

- 1 3. The method of claim 1 wherein removing the material with the delivered RF
2 energy comprises ablating the material.

- 1 4. The method of claim 1 or 3 wherein removing the material comprises removing
2 disc tissue.

- 1 5. The method of claim 1, 2, or 3 wherein advancing the distal region of the catheter
2 through the nucleus pulposus comprises advancing the distal region along a curved path.

- 1 6. The method of claim 1, 2, or 3 wherein the introducer comprises a needle and
2 inserting the introducer comprises inserting the needle.

- 1 7. The method of claim 6 further comprising inserting the needle and a trocar.

- 1 8. The method of claim 6 wherein inserting a needle comprises inserting a 17-gauge
2 needle.

1 9. The method of claim 8 further comprising inserting the needle and a trocar.

1 10. The method of claim 1, 2, or 3 further comprising providing the catheter with a
2 total length between 5 and 24 inches.

1 11. The method of claim 1, 2, or 3 wherein advancing the distal region of the catheter
2 comprises advancing the catheter so that a maximum distance the catheter extends from the
3 introducer is no greater than one and one-half times the circumference of the nucleus pulposus.

1 12. The method of claim 1, 2, or 3 wherein delivering RF energy comprises
2 delivering RF energy from a bipolar electrode configuration.

1 13. The method of claim 1, 2, or 3 further comprising twisting the catheter after
2 inserting the catheter into the intervertebral disc.

1 14. The method of claim 13 wherein advancing the distal region of the catheter
2 through the nucleus pulposus comprises advancing the distal region along a curved path.

1 15. The method of claim 1, 2, or 3 further comprising heating the material to a
2 temperature in a range of 45-70 degrees C with the delivered RF energy.

1 16. The method of claims 1, 2, or 3 further comprising heating the material to a
2 temperature of 55 degrees C with the delivered RF energy.

1 17. The method of claims 1, 2, or 3 further comprising heating the material to a
2 temperature of 65 degrees C with the delivered RF energy.

1 18. The method of claim 1, 2, or 3 further comprising denervating at least a portion of
2 the intervertebral disc with the delivered RF energy.

1 19. The method of claim 1, 2, or 3 wherein advancing the distal region comprises
2 advancing the electrode beyond the introducer.

1 20. The method of claim 1, 2, or 3 wherein delivering RF energy comprises
2 delivering RF energy to the inner wall of the annulus fibrosus.

1 21. The method of claim 1, 2, or 3 wherein delivering RF energy comprises
2 delivering RF energy while the catheter is positioned at a location adjacent the inner wall of the
3 annulus fibrosus.

1 22. The method of claim 1, 2, or 3 wherein delivering RF energy comprises
2 delivering RF energy to multiple locations in the intervertebral disc using at least the electrode.

1 23. The method of claim 22 wherein delivering RF energy to multiple locations
2 comprises delivering RF energy to the multiple locations simultaneously.

1 24. The method of claim 22 wherein delivering RF energy to multiple locations
2 comprises:
3 delivering RF energy to at least a first of the multiple locations using the electrode; and
4 delivering RF energy to at least a second of the multiple locations using a second
5 electrode.

1 25. The method of claim 22 wherein delivering RF energy to multiple locations
2 comprises delivering RF energy to the multiple locations serially.

1 26. The method of claim 22 wherein delivering RF energy to multiple locations
2 comprises delivering RF energy to the multiple locations using the electrode.

1 27. The method of claim 1, 2, or 3 further comprising advancing the catheter along
2 the inner wall of the annulus fibrosus.

1 28. The method of claim 1 wherein advancing the distal region of the catheter
2 comprises conforming the catheter sufficiently to the inner wall of the annulus fibrosus to
3 contact multiple locations on the inner wall.